

In the United States Court of Federal Claims

No. 02-255 C

(Filed March 22, 2005)

(Reissued for Publication September 8, 2005)*

TRITEK TECHNOLOGIES, INC.,

Plaintiff,

v.

THE UNITED STATES,

Defendant,

and

NORTHROP GRUMMAN CORP.,

Third-Party Defendant,

and

SIEMENS DEMATIC CORP.,

Third-Party Defendant.

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Patent infringement; 28 U.S.C. § 1498;
doctrine of equivalents; demonstrative
exhibit; means-plus-function; feeder
system for high speed mail sorter.

OPINION

Frederick A. Tecce and Anthony J. DiMarino, III, Philadelphia, PA, for the plaintiff.

Scott Bolden, U.S. Department of Justice, Commercial Litigation Branch, Civil Division, with whom were *Peter D. Keisler*, Assistant Attorney General, and *John J. Fargo*, Director, for the defendant.

Gregg F. LoCascio, Washington, DC, for Third-Party Defendant, Siemens Dematic Corporation. *Charanjit Brahma* and *Eugene F. Assaf*, Washington, DC, of counsel.

Deneen J. Melander, Washington, DC, for Third-Party Defendant, Northrop Grumman Corporation.

* Redacted material is indicated by brackets ([____]).

DAMICH, Chief Judge.

This opinion follows an order issued on March 16, 2005 in which the Court GRANTED-IN-PART and DENIED-IN-PART Plaintiff's request to present a demonstrative exhibit at the March 24, 2005 oral argument. The reasons for the Court's order are set forth herein.

I. Background

Plaintiff Tritek Technologies, Inc., filed this action for patent infringement on April 2, 2002, alleging the use or manufacture of the invention described in United States Patent 5,398,922 ("the '922 patent"), which teaches an improvement in a feeder system for a mail sorter that sorts oversized pieces of mail, known as "flats." On December 5, 2003, the Court issued an Opinion & Order on Claim Construction ("Markman Order") in which it construed the meaning of disputed terms in the '922 patent. On April 2, 2004, Defendants filed a Renewed Motion for Summary Judgment of Non-infringement ("the Renewed MSJ").

Oral argument was scheduled on the Renewed MSJ on September 29, 2004. Shortly before the hearing on September 24, 2004, Plaintiff called to inform the Court that it intended to present a demonstrative exhibit in the form of a scaled replica of the accused AFSM-100 device. Defendants objected to the presentation of the demonstrative exhibit. As a result, on September 27, 2004, an off-the-record status conference was held to address the issue. During the status conference, Plaintiff indicated that the exhibit would be useful to demonstrate insubstantial differences and similarities between the accused device and the claimed invention. The Court did not allow the demonstrative exhibit to be presented at the hearing, but it allowed Plaintiff to identify those instances during the hearing at which it would have offered the demonstrative exhibit to help illustrate its arguments. The Court further stated that it would reconsider the issue at a later date if it became necessary. In a hearing held on September 29, 2004 ("the September Hearing"), the Court heard oral argument on the Renewed MSJ. One of the issues before the Court was whether Plaintiff should be barred from pursuing theories of infringement under the doctrine of equivalents for failing to allege the doctrine as a basis for infringement in its court-ordered Claim Chart. After hearing argument on the issue, the Court ruled from the bench that Plaintiff would not be permitted to present certain arguments pertaining to the doctrine of equivalents due to its failure to present these arguments in its claim chart as required by the Court's Special Procedures Order.¹

On October 15, 2004, however, Plaintiff filed a Motion to Preclude Defendants from Relying Upon Summary Judgment Arguments Not Identified in Response to Plaintiff's Contention Interrogatories or in the Alternative, Motion for Reconsideration. In an Opinion and Order issued on January 14, 2005 ("January Order"), the Court granted-in-part Plaintiff's Motion to Preclude/Reconsider, allowing Plaintiff to present some doctrine of equivalents arguments but

¹ As Plaintiff had alleged infringement under the doctrine of equivalents for the "switch" limitation in claim 13 in its claim chart, the Court permitted Plaintiff to present doctrine of equivalents arguments on this claim element during the September Hearing.

not others. The January Order also instructed the parties to file briefs on the issue of the demonstrative exhibit, and further ordered that Plaintiff make the demonstrative exhibit available for inspection by Defendants prior to filing the briefs. That inspection took place on or about February 7, 2005.

Subsequent to the inspection, Plaintiff filed its brief on February 14, 2005, asking that the Court observe and receive into evidence its demonstrative exhibit. Defendants filed their brief in opposition on February 22, 2005.

II. Purpose for the Offer

The Renewed MSJ seeks summary judgment of non-infringement on the basis of five non-infringement arguments,² each of which alleges that a specific limitation found in the asserted claims is not present in the accused device. Defendants' non-infringement arguments rely to varying degrees on legal assertions and on factual contentions that they allege are not in dispute. Plaintiff generally offers the demonstrative exhibit for the purpose of supplementing and supporting the record concerning its opposition to the Renewed MSJ. Specifically, Plaintiff submits that the demonstrative exhibit will refute factual assertions which were set forth and relied upon by Defendants in support of the Renewed MSJ. Plaintiff characterizes the exhibit as "demonstrative" because it is offered for the purpose of rendering other evidence more understandable to the court, thereby enabling the Court to assess the legitimacy of Defendant's non-infringement contentions advanced in the Renewed MSJ.

III. Analysis

A. Legal Standard

The Court first notes that the term "demonstrative evidence" does not appear in the Federal Rules of Evidence and that there is disagreement among legal scholars even as to what demonstrative evidence is. *Compare* 22 CHARLES ALAN WRIGHT, KENNETH W. GRAHAM, JR., FED. PRAC. & PROC. EVID. § 5172 (2d ed. 1987) *with* 5 CHRISTOPHER B. MUELLER & LAIRD C. KIRKPATRICK, FEDERAL EVIDENCE § 532 (2d ed. 2004). After reviewing the literature and drawing upon its experience, the Court defines demonstrative evidence to be evidence used to explain or illustrate testimony (or other evidence) that is already in the record and will consider Plaintiff's request accordingly.

Although the term "demonstrative evidence" does not specifically appear in the Federal Rules of Evidence, because Plaintiff seeks to admit its demonstrative evidence, its evidence must comply with the Federal Rules of Evidence. Defendants challenge the admissibility of Plaintiff's

² Defendants' non-infringement arguments from the Renewed MSJ will be hereinafter referred to as "non-infringement argument *n*" where *n* corresponds to the argument's ordering in the Renewed MSJ.

demonstrative evidence on the grounds of relevance. Under FED. R. EVID. 402, relevant evidence is generally admissible subject to certain exceptions, while evidence which is not relevant is not admissible. “‘Relevant evidence’ means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.” FED. R. EVID. 401. Thus, as a threshold issue, Plaintiff’s demonstrative exhibit must be relevant to be admissible.

Finding that the demonstrative exhibit is relevant does not end the inquiry. Under FED. R. EVID. 403, demonstrative evidence may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice, confusion of the issues, or misleading the jury, or by considerations of undue delay, waste of time, or needless presentation of cumulative evidence. *Young Dental Mfg. Co. v. Q3 Special Prods., Inc.*, 112 F.3d 1137, 1146 (Fed. Cir. 1997) (citing FED. R. EVID. 403). Lastly, as with any evidence, demonstrative evidence requires a foundation, and must satisfy the requirement of evidence sufficient to support a finding that it is “what its proponent claims.” FED. R. EVID. 901(a).

B. Relevance

In order to determine whether the demonstrative exhibit is relevant to the arguments presented in the Renewed MSJ, the Court must first determine exactly what is at issue. After ascertaining the precise nature of the issues raised by the Renewed MSJ, the Court must then determine whether the demonstrative exhibit is relevant to any of those issues. Defendants contend that any purported facts shown by the demonstrative exhibit are irrelevant to its summary judgment arguments, because each of the arguments set forth in the Renewed MSJ relies on a purely legal determination that will be made by the Court. Defendants point out that their doctrine of equivalents contentions in the Renewed MSJ focus on the unavailability of the doctrine of equivalents as a matter of law due to prosecution history estoppel. Although the Court agrees that the demonstrative exhibit is largely irrelevant for the purposes offered by Plaintiff, it does have limited relevance with respect to two of Defendants’ non-infringement arguments as will be discussed below.

1. Non-Infringement Argument No. 1

Defendants’ first non-infringement argument is that the accused AFSM-100 does not have a “stack maintaining mechanism” that maintains mail in a “vertical side by side stack” as required by each asserted claim. In the Markman Order, the Court found that the “stack maintaining mechanism” in each asserted claim is a means-plus-function claim subject to interpretation under 35 U.S.C. § 112 ¶ 6. (Markman Order at 9-13.) In the January Order, the Court held that Plaintiff was barred from alleging infringement under the doctrine of equivalents as to this claim element. Because the doctrine of equivalents is not available to Plaintiff, the issue with respect to this limitation is whether this claim limitation is literally found in the accused device. Literal infringement of a means-plus-function claim limitation requires that the relevant structure in the accused device perform the identical function recited in the claim and that the structure be identical or equivalent to the corresponding structure in the specification. *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 1267 (Fed. Cir. 1999).

The Court held that the “stack maintaining mechanism” performs the function of “[m]aintaining the items of mail as part of the vertical stack on the horizontal run until the items of mail are removed from the stack and the stack no longer exists.” (Markman Order at 10, 12.) The Court further held that the structure of the “stack maintaining mechanism” is “(1) a paddle mounted so that it is perpendicular to the horizontal run of the feed conveyor belt, which has a corner or projection in contact with the horizontal run, and is configured to be in contact with the last item of mail in the stack so that the stack is sandwiched between the paddle and a singulation station; 2) an attachment arm with offset extensions; and 3) a guide rail.” (Markman Order at 11, 13.)

A finding of identical function for this claim element requires a finding that the stack is maintained as “vertical.” Plaintiff has conceded that the paddle in the accused device is set at least [] degrees off of vertical. Defendants’ non-infringement argument seizes on this admission by alleging that mail stacked against the paddle cannot be vertical because the paddle is not vertical. However, Plaintiff claims that the demonstrative exhibit is relevant to this question because it would show that “the paddle angle does not affect the angle of the mail in the stack which sits on the horizontal feed belt.” In this respect, the Court finds that the demonstrative exhibit is relevant to that determination and will be allowed for this limited purpose.

2. Non-Infringement Argument No. 2

Defendants’ second non-infringement argument is that the “transfer means” in the ASFM-100 does not “extend juxtaposed across a remainder of said discharge end” as required by each asserted claim. Plaintiff does not argue that the demonstrative exhibit is relevant to this argument. Accordingly, the Court finds that the demonstrative exhibit is not relevant to the second non-infringement argument offered by Defendants. Because Plaintiff has not provided any basis for introducing the demonstrative exhibit in connection with this argument, the demonstrative exhibit may not be presented in connection with this non-infringement argument.

3. Non-Infringement Argument No. 3

Defendants’ third non-infringement argument alleges that the accused AFSM-100 lacks an “initial hold means” and “transfer means” that act upon the “downstream-most item of mail” as required by each asserted claim. During the September Hearing, the Court barred Plaintiff’s assertions of infringement under the doctrine of equivalents, but later reconsidered its decision in the January Order. Thus, both the issue of literal infringement and the issue of infringement under the doctrine of equivalents are pending before the court as to this claim limitation.

Defendants’ non-infringement argument focuses on the fact that in the accused device, mail drops from the horizontal feed belt into a [____] trough before being acted upon by the initial hold means or transfer means. The Markman Order required that the “downstream-most item of mail” be physically on the belt. (Markman Order at 18-19.) According to Defendants, because the initial hold means (vacuum) and transfer means (belt) in the AFSM-100 act on a piece of mail only after it has fallen off of the horizontal run and into the trough, it cannot literally infringe this claim element. Defendants also argue that Plaintiff cannot assert the

doctrine of equivalents due to argument-based prosecution history estoppel. Defendants contend that in arguing to overcome an anticipation rejection over a prior art reference by Takeda, Plaintiff maintained that the invention was patentable because in Takeda there was no vertically disposed initial hold means for separating the downstream most item of mail from the remainder of the stack. Rather, the separation was apparently effected in Takeda by means of a vibration level which applied “vibration to separate the layered mail.”

Plaintiff suggests that the demonstrative exhibit would show that the removal of the trough makes virtually no difference in the operation of the AFSM-100. However, the Court does not see how this evidence can be relevant to the non-infringement arguments presented in the Renewed MSJ. Literal infringement is a factual inquiry that involves comparing the properly construed claim limitation to the accused device to determine, as a matter of fact, whether the claim limitation is literally present in the accused device. *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1341 (Fed. Cir. 2001). The literal infringement determination with respect to this claim element is simply whether the transfer means and initial hold means act on mail that is still on the horizontal feed belt. The removal of the trough would not be relevant to this inquiry, because either the initial hold means and transfer means act on a piece of mail that is on the belt, or they do not. Demonstrating that the presence/absence of the trough does not affect the operation of the machine does not make this fact any more or less likely. *See* FED. R. EVID. 401 (“[r]elevant evidence means evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence”).

The doctrine of equivalents issue tied to this claim element is simply whether the statements in the prosecution history disclaimed coverage of a machine such as the ASFM-100 as a matter of law. The effect of prosecution history estoppel on patent infringement under the doctrine of equivalents presents a question of law, which an appellate court reviews without deference. *Toro Co. v. White Consolidated Industries, Inc.*, 383 F.3d 1326 (Fed. Cir. 2004). This question is decided based on the intrinsic record of the patent, by analyzing the claims, the specification and the prosecution history. Thus, even if the demonstrative exhibit shows exactly what Plaintiff alleges, it would make no difference in this doctrine of equivalents inquiry because the demonstrative exhibit would go only to showing insubstantial differences between the accused device and the claims. Although the demonstrative exhibit could become relevant in a later proceeding where a fact-based question of equivalence is at issue, it is not relevant at this time.

4. Non-Infringement Argument No. 4

Defendants’ fourth non-infringement argument (directed only to claim 13) alleges that the transport belt in the accused AFSM-100 is perforated along its entire length, not a portion of its length as required by claim 13. The transfer means limitation in claim 13 is a means-plus-function claim limitation. The transfer means performs the recited function of “removing the downstream-most item of mail to said delivery station.” (Markman Order at 30.) The structure disclosed in the specification was in part “a vertically mounted transport belt having a plurality of holes along a portion (less than the entirety) of its length.” (Markman Order at 31.)

As discussed above, literal infringement of a means-plus-function claim limitation requires that the relevant structure in the accused device perform the identical function recited in the claim and be identical or equivalent to the corresponding structure in the specification. *Odetics, Inc.*, 185 F.3d at 1267. Infringement of a mean-plus-function claim may also be found under the doctrine of equivalents where the accused device performs substantially the same function, and also has identical or equivalent structure. See *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1320-21 (Fed. Cir. 1999).

Defendants argue that the AFSM-100 does not infringe this claim limitation because it does not perform the recited function of “removing the downstream-most item of mail” due to the presence of the trough in the accused AFSM-100 device. Defendants also argue that the AFSM-100 lacks the equivalent structure required by the claims because its belt is continuously perforated. Defendants’ reply brief (filed in connection with the Renewed MSJ) further argues that using a “continuously perforated belt and valves to control . . . vacuum pressure” is not equivalent to the structure disclosed in the patent specification.

Plaintiff asserts that the “replica reveals that there are no differences between the vacuum as claimed and the vacuum in the accused device. The replica also reveals that it makes no difference whether the vacuum runs continuously or turns on/off.” Plaintiff also asserts that the demonstrative exhibit would show that the removal of the trough makes virtually no difference in the operation of the AFSM-100.

Each of the described purposes for Plaintiff’s offer of the demonstrative exhibit seems relevant to the infringement inquiry for this claim element. If the demonstrative exhibit is as alleged, it would go toward rebutting Defendants’ arguments that the differences in structure between the accused device and the claimed invention are substantial. Moreover, because Plaintiff is entitled to argue that this claim limitation is infringed under the doctrine of equivalents, the demonstrative exhibit could support its argument that the function of the alleged transfer means in the AFSM-100 is functionally equivalent to the transfer means described in the claims.

5. Non-Infringement Argument No. 5

Defendants’ fifth non-infringement argument is that the AFSM-100 lacks switches “located . . . in the path of movement of said paddle” that sense both an item of mail and the paddle as required by claim 13. More specifically, Defendants argue that none of the switches in the accused AFSM-100 senses both (1) an item of mail; and (2) the paddle.

Defendants also argue that because the court construed paddle to be “a flat plate in contact with an upstream-most item of mail in the stack and configured to sandwich the stack between it and the singulation station and push the stack toward the discharge end,” (Markman Order at 32), none of the switches in the AFSM-100 is in the path of movement of the paddle as defined by the Court. Defendants argue that the doctrine of equivalents is not available to Plaintiff based on amendment-based prosecution history estoppel. They argue that in distinguishing the Kosner reference during prosecution, Plaintiff limited the claim to covering

systems that literally included switches located in the path of movement of the paddle. Defendants also argue that applying the doctrine of equivalents to this element would vitiate the claim language by entirely reading the limitation out of the claim.

Plaintiff contends that the demonstrative exhibit would show that “[i]t makes absolutely no difference in the operation of the machine whether the sensing switch is in the path of the paddle or located outside of the path of the paddle so that it can sense the position of the paddle in the paddle's path of movement.”

However, what the exhibit purports to show is not relevant to the non-infringement argument inquiry presented by the Renewed MSJ. Plaintiff has conceded that the accused device does not literally infringe this limitation. The doctrine of equivalents arguments at issue with respect to this limitation are pure questions of law. The demonstrative exhibit is being offered to demonstrate that a machine without the switches in the path is insubstantially different from the coverage of the claims. However, the determination that the Court will be making in connection with this claim limitation is whether Plaintiff is even entitled to assert the doctrine of equivalents with this limitation due to amendments made during prosecution before the patent office. This determination is a pure question of law. As a result, Plaintiff's demonstrative exhibit is not relevant to this non-infringement argument.

C. Danger of Unfair Prejudice

Plaintiff contends that the admission into evidence of this machine would not unfairly prejudice Defendants because Defendants waived their opportunity to challenge the admissibility of the demonstrative exhibit. Plaintiff argues that Defendants did not cross-examine Mr. Malatesta (Tritek's president, the inventor on the patent at issue, and the person who designed and fabricated the demonstrative exhibit) during his Rule 30(b)(6) deposition, even though the exhibit was identified as a topic in the Notice of Deposition. This argument is not persuasive, because at the time the deposition took place, Plaintiff's doctrine of equivalents arguments had been precluded, and the admissibility of the demonstrative exhibit did not reasonably appear to be at issue.³ Only after the Court reinstated some of the doctrine of equivalents arguments in the January Order did the issue regarding the admissibility of the demonstrative exhibit re-emerge.

Defendants argue that under FED. R. EVID. 403, the demonstrative exhibit should be barred because allowing the Court to observe the demonstrative exhibit during the upcoming oral argument would be unduly prejudicial to an extent that substantially outweighs the exhibit's probative value. According to Defendants, Plaintiff's failure to disclose two key pieces of information prior to filing its brief in support of the demonstrative exhibit renders the introduction of the demonstrative exhibit overly prejudicial. Defendants further argue that Plaintiff did not fully disclose how it intended to use the exhibit during the February 7, 2005 inspection. In particular, Defendants allege that the configuration of the demonstrative exhibit shown to them during the inspection has been modified in the time since, so they have not been given opportunity to fairly assess the demonstration contemplated by Plaintiff.

³ Mr. Malatesta's deposition took place on November 16, 2004.

The Court disagrees. Although Plaintiff changed the machine configuration somewhat between the inspection and the submission of its brief, Plaintiff included a video with its brief (which was served on Defendants) depicting the various configurations that would be offered to the Court if the demonstrative exhibit were to be permitted. Thus, Defendants were able to view these modifications in advance of preparing their response, and therefore have had an adequate opportunity to address these changes in configuration in preparing their responding brief.

Defendants also object to Plaintiff's failure to disclose at the February inspection that it intended to ask the Court to admit the demonstrative exhibit into evidence. Defendants argue that this omission prejudices their position because in seeking to admit the exhibit into evidence, Plaintiff is attempting to use the demonstrative exhibit as more than a demonstrative aid.

As a general matter, this concern also seems somewhat misguided. Although demonstrative exhibits are often not entered into evidence, courts have held that if a party relies on demonstrative evidence, the evidence should be preserved as part of the record. 5 MUELLER & KIRKPATRICK, *supra*, § 532 n. 10 (citing *United States v. Skinner*, 425 F.2d 552, 555 (D.C. Cir. 1970)). The Court also notes that demonstrative evidence has previously been admitted into evidence in this case without objection. For example, at the September Hearing, the Court received the parties' demonstrative PowerPoint presentations into evidence subsequent to the hearing. Thus, the fact that Plaintiff seeks to submit the demonstrative exhibit into evidence should come as no surprise to Defendants, as demonstrative exhibits have previously been admitted into evidence without objection. Accordingly, the Court finds that the probative value of the demonstrative exhibit is not substantially outweighed by its prejudicial effect.

D. Authentication

Defendants also argue that allowing the demonstrative exhibit and the supporting affidavits into evidence would constitute the admission of unreliable, undisclosed and unsupported *expert* testimony in violation of Federal Rule of Evidence 702 and RCFC 26(a)(2) which requires a report containing "a complete statement of all opinions to be expressed and the basis and reasons therefor; [and] the data or other information considered by the witness in forming the opinions." Defendants contend that Mr. Malatesta's declaration submitted in support of the exhibit contradicts his deposition testimony and the previous declarations of Plaintiff's experts. Defendants also contend that the demonstrative exhibit should not be admitted because it is nowhere close to an "exact replica" of the accused AFSM-100 device.

Rule 901 of the Federal Rules of Evidence requires that the proponent of evidence provide sufficient foundation that it can support a finding that "the matter in question is what its proponent claims." As noted in part III.A, *supra*, the purpose of a demonstrative exhibit is to explain evidence that is already in the record, and does not have substantive force of its own. However, Defendants' argument that allowing the demonstrative exhibit and the supporting affidavits into evidence would constitute the admission of unreliable, undisclosed and unsupported expert testimony raises a concern. In view of the limited purpose of a demonstrative exhibit, the Court agrees that Mr. Malatesta's declaration would amount to expert testimony, and therefore will not admit the declaration into evidence, nor will it consider the declaration as

evidence of the accuracy and reliability of the demonstrative exhibit. In turn, the declaration of Mr. DiFurio will likewise not be considered for purposes of admitting the demonstrative exhibit into evidence.

The Court must also be mindful of the broader context in which this demonstrative exhibit is offered. The pending motion is a motion for summary judgment under RCFC 56. Any doubt as to whether a genuine issue of material fact exists must be resolved in favor of the non-moving party. *Adickes v. Kress & Co.*, 398 U.S. 144, 158-59, 90 S.Ct. 1598, 1608-09, 26 L.Ed.2d 142 (1970). Thus, for purposes of the motion, Plaintiff, as the non-movant receives factual inferences in its favor. Moreover, given the limited purposes for which the demonstrative exhibit will be permitted, neither of these declarations is necessary to authenticate or challenge the demonstrative exhibit. The exhibit will be observed by the Court for only three purposes: (1) to support Plaintiff's argument that the angle of the paddle in mail sorting machines is not necessarily determinative of the angle of the mail; (2) to support Plaintiff's argument that as a general matter, a machine with a continuously perforated belt and alternating vacuum can operate in the same way as a machine with a partially perforated belt and continuous vacuum; and (3) to support its contention that the presence of a trough makes very little difference in the operation of machines of this type. The evidence need not be an exact replica of the accused device to be useful in this limited context. Obviously, if Plaintiff attempts to use the demonstrative exhibit beyond the purposes expressed herein, the evidentiary foundation for the exhibit becomes immediately suspect.

IV. Conclusion

Because observing the demonstrative exhibit will not be overly prejudicial and because the demonstrative exhibit is relevant to two of the non-infringement issues pending in the Renewed MSJ, the Court will allow Plaintiff to present its demonstrative exhibit at oral argument for the limited purpose of: (1) attempting to establish that the paddle angle does not affect the angle of the mail in the stack which sits on the horizontal feed belt; (2) attempting to establish that it makes no difference whether the vacuum runs continuously or turns on/off; and (3) attempting to show that the presence of the trough does not substantially change the function of the transfer means in mail sorting devices.

Edward J. Damich
Chief Judge